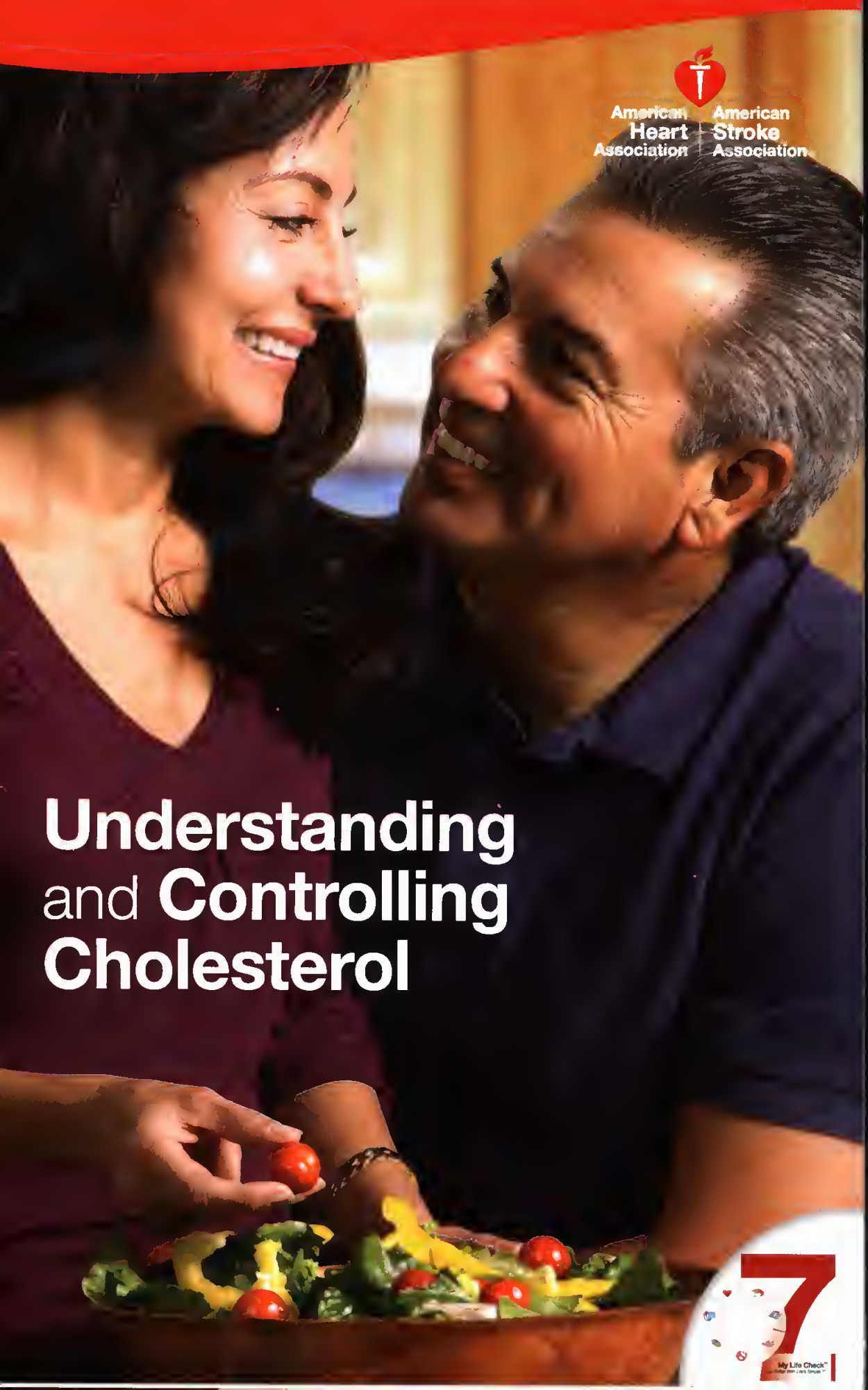

American Heart Association
American Stroke Association
Understanding and Controlling Cholesterol
7
My Life Check

Why Worry About Cholesterol?

Keeping cholesterol levels under control is important for *everyone*. That means men and women, younger and older people, people of all ages, and people with and without heart disease. High blood cholesterol is a leading risk factor for coronary heart disease and stroke.

Listed below are the most common risk factors for developing heart disease. Note where cholesterol appears on the list:

- High blood pressure (treated or untreated)
- Tobacco smoke
- **High LDL (bad) cholesterol**
- **Low HDL (good) cholesterol**
- Physical inactivity
- Obesity and overweight
- Diabetes mellitus
- Age (men 45 years or older; women 55 years or older)
- Family history (father or brother with coronary heart disease before age 55, OR mother or sister before age 65)

This booklet will help you understand how cholesterol affects the body. You'll also learn what you can do to protect your health by keeping your cholesterol levels under control.

Understanding
Cholesterol

Cholesterol is a soft, fat-like substance found in the bloodstream and in all the body's cells. The body makes all the cholesterol it needs and uses it to form cell membranes, some hormones and substances that help digest foods.

You also get cholesterol from some of the foods you eat, so it's important to know how much cholesterol is in the foods you eat.

Cholesterol is part of a healthy body. But having too much of it in your blood can be a problem. High blood cholesterol is a risk factor for heart disease and stroke, America's No. 1 and No. 4 killers. If you have both high blood cholesterol and heart disease, your stroke risk is even greater. But by lowering blood cholesterol levels, you reduce the risk of heart disease and **ischemic** stroke (stroke caused by blood clots).

How Cholesterol Is Measured

It's easy to have high cholesterol and not know it. High cholesterol has no symptoms that you can see or feel. That's why it's important to have it measured.

Often referred to as "getting your cholesterol checked," is a blood test called a "lipoprotein profile." It evaluates several types of fat in the blood and is measured in milligrams per deciliter (mg/dL). This profile will also show LDL (bad) cholesterol and HDL (good) cholesterol, as well as triglycerides (blood fats). Together, your LDL and HDL numbers are known as your "total" cholesterol.

If you're 20 or older, have your cholesterol measured at least once every five years. If other factors put you at higher risk for heart disease or stroke, your healthcare provider may want to check it more often. Follow your provider's advice about how often to have your blood tested.

It is best to do a lipoprotein profile when you have fasted. A non-fasting profile provides limited test results, which include total cholesterol and HDL cholesterol. If you have had a non-fasting profile and your total cholesterol is 200 mg/dL or more—or your HDL cholesterol is less than 40 mg/dL (for men) or less than 50 mg/dL (for women), talk with your healthcare provider about having a fasting lipoprotein profile done.

Total Cholesterol

When measured, your total cholesterol will fall into one of these categories:

Total Cholesterol Level	Category
Less than 200 mg/dL	Desirable
200–239 mg/dL	Borderline high
240 mg/dL and above	High blood cholesterol

Desirable

If your total cholesterol is less than 200 mg/dL, your heart attack and stroke risk is relatively low, unless you have other risk factors. Almost half of U.S. adults have total cholesterol levels below 200 mg/dL.

Borderline High

People who have a total cholesterol between 200 and 239 mg/dL fall into the "borderline high" group. These people may have twice the risk of heart attack as people whose cholesterol level is less than 200 mg/dL. About a third of American adults are in this borderline high group.

If you fall into the borderline high group, work with your healthcare provider to lower your total cholesterol and control any other risk factors you have.

Even if your cholesterol is between 200 and 239 mg/dL, you may not be at high risk for a heart attack. Some people (such as women before menopause and young, active men with no other risk factors) may have high HDL cholesterol and desirable LDL levels.

High Blood Cholesterol

If your total cholesterol is 240 mg/dL or above, it's too high. About one in seven U.S. adults has a total blood cholesterol level of 240 mg/dL or higher.

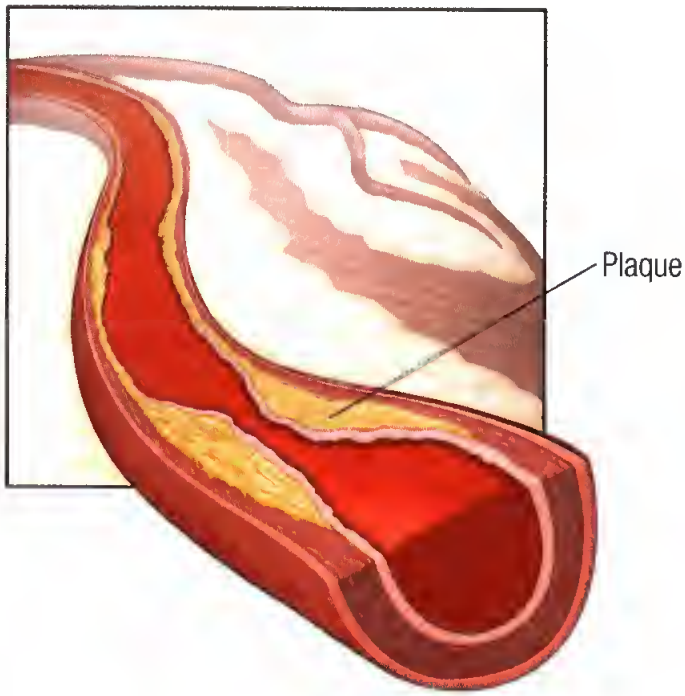
At this level, you have more than twice the risk of heart disease as someone whose cholesterol is below 200 mg/dL. Your risk of stroke is greater, too. Work closely with your healthcare provider. Follow his or her advice on how to lower your total cholesterol and reduce your risk.

Understanding LDL, HDL and Triglycerides

Cholesterol moves through your bloodstream to your body's cells in special carriers. These are called **lipoproteins.** There are many kinds of lipoproteins. The two most important are low-density lipoprotein (**LDL**) and high-density lipoprotein (**HDL**).

LDL Cholesterol

LDL cholesterol is known as "bad" cholesterol. The body's tissues use some of this cholesterol to build cells. But when you have too much of it, LDL can build up inside the arteries that carry blood to the heart and brain. Together with other substances, it can form **plaque** (a thick, hard, fatty deposit). Plaque narrows the arteries and reduces blood flow. This condition is called **atherosclerosis.**



Plaque can cause your heart's arteries to become so narrow that your heart can't get enough blood. This can lead to chest pain called angina pectoris. Even worse, if the plaque splits open, causing a blood clot to form, blood flow to part of the heart muscle can be blocked. This causes a heart attack. And if a clot blocks blood flow to part of the brain, a stroke results.

A high LDL number means high risk of heart disease and stroke. In general, the higher your LDL level and the more other risk factors you have, the greater your chances of developing heart disease or having a heart attack. Lower levels of LDL cholesterol reflect a lower risk level.

Your LDL cholesterol level will fall into one of the categories below. Ask your healthcare provider what **your** level should be.

LDL Cholesterol Level	Category
Less than 100 mg/dL	Optimal
100–129 mg/dL	Near or above optimal
130–159 mg/dL and above	Borderline high
160–189 mg/dL and above	High
190 mg/dL and above	Very high

Your LDL Goal

Your LDL cholesterol goal depends on how many other risk factors you have:

If you:	Then your LDL goal is:
Don't have coronary heart disease, diabetes or other vascular disease and have one or no risk factors	Less than 160 mg/dL
Don't have coronary heart disease, diabetes or other vascular disease and have two or more risk factors	Less than 130 or less than 100, depending on your overall risk
Do have coronary heart disease, diabetes or other vascular disease	Less than 100 mg/dL (Less than 70 mg/dL may be considered a treatment option)

These major risk factors will affect your LDL goal.

- Cigarette smoking OR living or working with people who smoke tobacco regularly.
- High blood pressure (140/90 mmHg or higher) OR taking blood pressure medication.
- HDL cholesterol less than 40 mg/dL for men or less than 50 mg/dL for women.
- Diabetes (fasting blood glucose or "blood sugar" of 126 mg/dL or higher).
- Family history of early heart disease (father or brother before age 55 OR mother or sister before age 65).
- Age (men age 45 or older OR women age 55 or older).

Lowering LDL

The lower your LDL cholesterol, the lower your risk. If needed, your healthcare provider may prescribe the Therapeutic Lifestyle Changes (TLC) diet to help lower your LDL cholesterol. It's a three-part program that uses diet (low in saturated fat, *trans* fat, cholesterol and sodium), physical activity and weight management to help lower your high blood cholsterol. Go to the NHLBI's Web site to learn all about the TLC diet: **www.nhlbi.nih.gov/health/public/heart/chol/chol_tlc.htm.**

To help lower LDL, lose weight if you're overweight and get regular physical activity to help you manage your weight. If these efforts don't lower your LDL cholesterol enough, your healthcare provider may also prescribe medication. Some medications are used successfully along with diet and physical activity to lower LDL cholesterol. This reduces your risk of heart attack and stroke.

HDL Cholesterol

HDL cholesterol is called "good" cholesterol. Having a high level of HDL can lower your risk of heart attack and stroke. Medical experts believe HDL takes cholesterol away from your arteries and back to the liver. There, it's reprocessed so that excess can be passed from the body. HDL may also remove cholesterol from plaque in the arteries.

An HDL of 60 mg/dL and above is considered protective against heart disease. But the opposite is also true. A low HDL cholesterol level (less than 40 mg/dL in men and less than 50 mg/dL in women) is a major risk factor for heart disease. It also raises your risk of stroke.

HDL Cholesterol Level	Category
Less than 40 mg/dL for men or less than 50 mg/dL for women	Low HDL cholesterol (major heart disease risk factor)
60 mg/dL and above	High HDL cholesterol (gives some protection against heart disease)

Your HDL Goal

HDL cholesterol should be higher than 40 mg/dL for men and higher than 50 mg/dL for women.

Raising HDL

To help raise HDL, don't smoke. Keep your weight at a healthy level, as directed by your healthcare provider. Get at least 150 minutes of moderate-intensity physical activity (for example, brisk walking) per week. And avoid very low-fat diets (less than 15 percent of total calories as fat).

Triglycerides

Triglycerides are the most common type of fat in the body. They're also a major energy source. They come from food, and your body also makes them.

As people get older or gain excess weight (or both), their triglyceride and cholesterol levels tend to rise.

Many people who have heart disease or diabetes have high triglyceride levels. A high triglyceride level combined with low HDL cholesterol or high LDL cholesterol can speed up atherosclerosis. Studies show that people with above-normal triglyceride levels (150 mg/dL or higher) have a higher risk of heart disease and stroke.

Your fasting triglyceride level will fall into one of these categories:

Triglyceride Level	Category
Less than 100 mg/dL	Optimal
Less than 150 mg/dL	Normal
150–199 mg/dL	Borderline high
200–499 mg/dL and above	High
500 mg/dL and above	Very high

Your Triglyceride Goal

Ask your healthcare provider what your triglyceride levels should be. If you need to lower your triglyceride levels, these lifestyle changes can help.

- Maintain a healthy weight. Excess fat near your waistline is strongly linked with high triglycerides. A 5–10 percent weight loss can result in a 20 percent decrease in triglycerides.
- Eat foods low in saturated fat, *trans* fat and cholesterol (see pages 26–27). Eat fruits, vegetables and fat-free dairy products most often.
- Get at least 150 minutes of moderate-intensity physical activity (for example, brisk walking) per week.
- Don't smoke, and avoid other people's smoke.
- Reduce your intake of alcohol. Even small amounts of alcohol can raise triglyceride levels.
- Cut back on beverages and foods with added sugars. A diet very high in carbohydrates (60 percent or more of calories) can raise triglycerides and lower HDL cholesterol in some people.

The American Heart Association recommends that you limit your sugar-sweetened beverages to no more than 36 ounces per week, based on a 2,000 calorie diet.*

If your triglycerides are outside the normal range, limit fructose consumption to 50–100g per day. Since fructose is not listed on the Nutrition Facts panel, you may need to talk to your doctor about how to reduce it in your diet.

* *To learn more about our guidelines (scientific statements on many different health topics), visit* ***heart.org.***

Controlling Cholesterol

A diet high in saturated fats, *trans* fats and dietary cholesterol tends to raise total cholesterol and LDL cholesterol. A diet low in saturated fats, *trans* fats and cholesterol helps lower blood cholesterol levels. The rest of this book offers tips on choosing foods that can help you manage your cholesterol levels.

Understanding Saturated Fats

Saturated fats are the main dietary cause of high blood cholesterol. They are found naturally in many foods. They mostly come from animal and dairy sources, such as meat, poultry with skin, cream, butter, cheese and other dairy products made from whole or reduced-fat (2%) milk.

The foods listed above also contain dietary cholesterol. Some plant foods—palm oil, palm kernel oil and coconut oil—also contain saturated fats, but they don't contain cholesterol.

*The American Heart Association recommends that you limit your saturated fat intake to less than 7 percent of total calories each day.** For a person who needs 2,000 calories a day, this is about 16 grams of saturated fat.

* *To learn more about our guidelines (scientific statements on many different health topics), visit* ***heart.org.***

Understanding *Trans* Fats

Trans fats are unsaturated, but they can raise total and LDL (bad) cholesterol and lower HDL (good) cholesterol. *Trans* fats happen when hydrogen is added to vegetable oils. This process is known as hydrogenation. It converts oils to solids, which improves a food's shelf life.

Trans fats are found in many foods. About 75 to 80 percent of *trans* fats come from partially hydrogenated fat.

Sources include commercially baked goods, fried foods and snack foods. They're also found in foods made with partially hydrogenated vegetable oils, vegetable shortening or stick margarine. (Tub and liquid margarines tend to contain low levels of *trans* fats.) About 20 to 25 percent of *trans* fats come from animal fat.

The American Heart Association recommends that you limit your trans *fat intake to less than 1 percent of total calories each day.** For a person who needs 2,000 calories a day, this is about 2 grams of *trans* fat.

Understanding Dietary Cholesterol

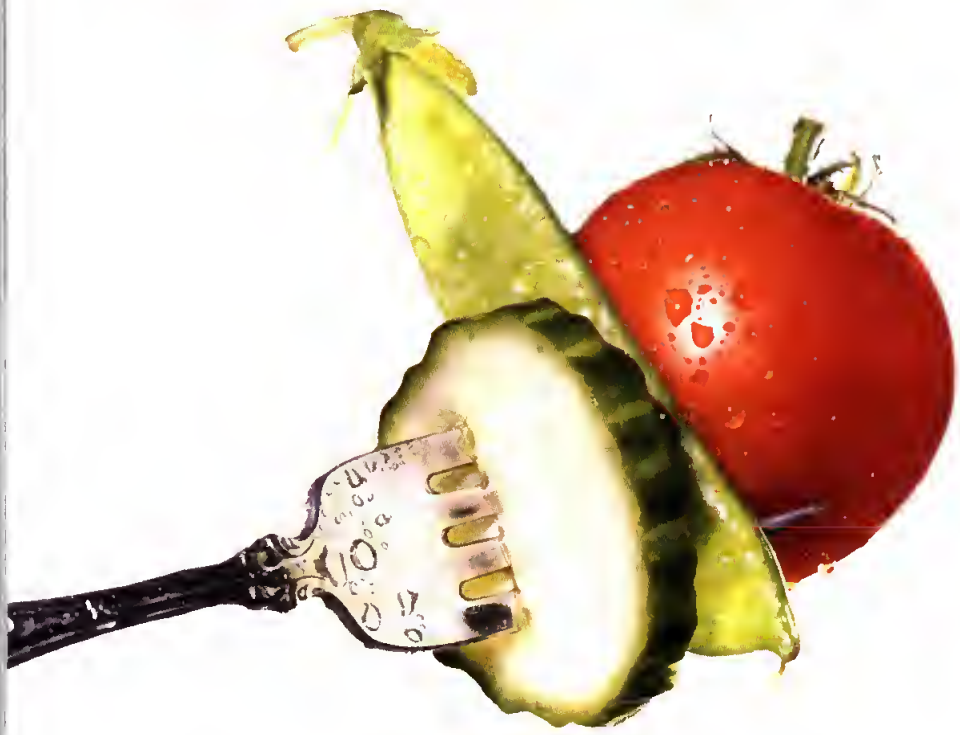
Dietary cholesterol is cholesterol found in the foods you eat. It can raise your LDL cholesterol level. In general, the liver makes all the cholesterol the body needs, so people don't need to eat it. Try to limit your cholesterol intake to less than 300 mg each day. If you have heart disease, limit your intake to less than 200 mg a day.

* *To learn more about our guidelines (scientific statements on many different health topics), visit* ***heart.org.***

How Much Fat Should You Eat?

Find which group you belong to on the chart below. Then, see how much total fat, saturated fat, *trans* fat and dietary cholesterol is healthy for you.

	Total Fat
People without coronary heart disease, diabetes or high LDL cholesterol	Adequate fat intake to reach an appropriate calorie level; 25–35% of total calories
People with coronary heart disease, diabetes or high LDL cholesterol (TLC diet)	25–35% of total calories



Saturated Fat	*Trans* Fat	Cholesterol
Less than 7% of total calories	Less than 1% of total calories	Less than 300 mg per day
Less than 7% of total calories	Less than 1% of total calories	Less than 200 mg per day

Even if you don't have heart disease, watch how much saturated fat, *trans* fat and cholesterol you eat if you have other risk factors. They can combine to form a risk level similar to that of heart disease.

Foods to Limit

To improve your total cholesterol level, choose foods low in saturated fat, *trans* fat and cholesterol. These fats are usually found in meat and dairy foods and products that are commercially baked or fried. Cutting back on these foods can reduce your risk for cardiovascular disease by lowering your LDL cholesterol level. Try these tips to cut down on saturated fat, *trans* fat and cholesterol.

Meats

- Choose lean meats and poultry without skin. Prepare them without added saturated and *trans* fats. Cuts of red meat and pork labeled "loin" and "round" usually have the least amount of fat.

- Remove all visible fat from meat and poultry before cooking.
- Choose white meat most often when eating poultry.
- Grill, bake or broil meats and poultry.
- Cut back on processed meats that are high in saturated fat and sodium, such as bologna and salami.

Dairy

- Select fat-free, 1% fat and low-fat dairy products.
- Minimize your intake of whole-fat dairy products such as butter and whole milk or full-fat dairy products (yogurt, cheeses).
- If you drink whole or 2% milk, or use full-fat dairy products, gradually switch to fat-free, low-fat or reduced-fat dairy products.

Partially Hydrogenated Vegetable Oils

- Use liquid vegetable oils and soft margarines in place of hard margarine or shortening.
- Limit cakes, cookies, crackers, pastries, pies, muffins, donuts and French fries made with partially hydrogenated or saturated fats.

Dietary Cholesterol

- Try to eat less than 300 mg of cholesterol each day.
- Be aware that common foods such as eggs (about 200 mg per yolk), whole milk (30 mg per cup), shellfish (50 to 100 mg per ½ cup) and "organ" meats such as liver (375 mg per 3 oz) are high in dietary cholesterol.

Fats that Lower Cholesterol

Not all fats are bad for your cholesterol levels. Both **polyunsaturated** and **monounsaturated** fats may help lower your LDL cholesterol level. Use them in place of butter, stick margarine and lard in the foods you eat. Examples of fats that can lower bad cholesterol include:

- **Plant oils.** They're normally liquid at room temperature. They're good to use in limited amounts for cooking or dressings. Examples include olive, corn, safflower, sunflower, soybean, canola, sesame and flaxseed oils.
- **Liquid or tub margarine.** It tends to be lower in saturated and *trans* fats than butter or stick margarine. Try to choose those with 0 grams of *trans* fat on the Nutrition Facts label.
- **Foods containing omega-3 fatty acids.** Foods rich in omega-3 fatty acids may help reduce the risk of heart disease. Fish are a good source of omega-3 fatty acids, especially oily fish such as mackerel, lake trout, herring, sardines, albacore tuna and salmon.

  Note: Women who are pregnant or nursing and young children should avoid eating fish that may be contaminated with mercury or other toxins. For more information, visit **www.foodsafety.gov.**

  *The American Heart Association recommends eating at least 2 servings of baked or grilled fish (preferably oily fish) each week.**

* *To learn more about our guidelines (scientific statements on many different health topics), visit* ***heart.org.***

- **Nuts and seeds.** These foods don't contain cholesterol. They are good sources of protein and fiber. They tend to be very high in fat and calories, but most of the fat is polyunsaturated or monounsaturated. Remember, these fats may actually help lower your cholesterol. Walnuts, almonds and pecans are examples of nuts that have some unsaturated fat. Some nuts, such as macadamia nuts, are higher in saturated fat, so check the Nutrition Facts label before you buy.

Try to use more poly- or monounsaturated oils. But use them sparingly to reduce caloric intake. This is better for you than using fats such as lard, shortenings or partially hydrogenated vegetable oils.

Some food products, such as cholesterol-lowering margarines, contain plant stanols or sterols that, when used in your diet, can help reduce LDL cholesterol.

Foods to Choose Most Often

It's not hard to lower your blood cholesterol levels. Just eat fewer foods that are high in saturated fat, *trans* fat and cholesterol. Choosing foods with low levels of these fats more often can also help you maintain a healthy body weight and a normal blood pressure. This can reduce your risk for other chronic health problems, such as type 2 diabetes, osteoarthritis and some forms of cancer. The tips that follow come from the American Heart Association 2006 Diet and Lifestyle Recommendations.

Before You Buy: Read the Label

Make reading food labels at the store a habit. They'll help you choose foods more wisely. Many foods have saturated and *trans* fats that can raise your cholesterol. Watch for these key terms:

- "Free" has none or only a trace amount of a nutrient (for example, cholesterol).
- "Low" contains a small amount of a nutrient (for example, fat).
- "Reduced" or "Less" always means the food has 25 percent less of that nutrient (for example, calories) than the standard version of the food.

The American Heart Association can help you choose heart-healthy foods when grocery shopping. Just look for products with our special heart-check mark. You can find hundreds of them throughout the grocery store.

You may also visit **heartcheckmark.org** for a list of certified heart-healthy foods.

Fruits and Vegetables

Fruits and vegetables are high in vitamins, minerals and fiber, and they're low in calories. Replace high-cholesterol and high-fat foods in your diet with more fruits and vegetables.

- Eat more of the deeply colored vegetables and fruits, such as spinach, carrots, peaches and berries. They're higher in vitamins and minerals than light-colored vegetables, such as potatoes and corn.
- Eat whole vegetables (fresh, frozen, canned) and fruits instead of drinking juices.
- If fresh foods are not available to you, look for frozen and canned vegetables and fruits in water without added sugar, saturated and *trans* fat, or salt.
- Prepare vegetables and fruits without adding saturated and *trans* fat, sugar and salt.

Whole-Grain, High-Fiber Foods

Whole grains and legumes (beans) tend to be low in fat and have no cholesterol. Most are good sources of dietary fiber, complex carbohydrates, vitamins and minerals, too.

- Choose whole-grain foods, such as whole wheat, oats/oatmeal, whole rye, whole barley and whole corn. Also try popcorn, brown rice, wild rice, buckwheat, bulgur (cracked wheat), millet, quinoa and sorghum.
- When shopping, read the ingredient list on the food label. Choose breads and other foods that list "whole" before the name of the grain. This should be the first item in the ingredient list.
- Aim to eat about 25 grams of fiber each day.

Fish

Many fish contain healthy omega-3 fatty acids. Eating oily fish may help lower your risk of death from coronary artery disease.

- Choose oily fish such as salmon, trout and herring.
- Grill, bake or poach fish. Limit fried fish, and don't add cream sauces.
- Prepare fish without added saturated and *trans* fat.

Dairy Products and Meats

Choose healthier versions of the foods you already eat.

- Choose fat-free, 1% fat and low-fat dairy products.
- Choose vegetable oils and margarines with liquid vegetable oil as the first ingredient.
- Choose frozen fat-free or low-fat yogurt, and fat-free or low-fat ice cream (no more than 3 grams of fat per ½ cup serving).

- Choose low-fat or fat-free cottage cheese, ricotta and other low-fat or fat-free cheeses. Pick those with no more than 3 grams of fat per ounce and 1 gram of saturated fat per ounce.
- Choose homemade or other types of baked goods made with unsaturated oils, fat-free or 1% milk and egg whites or egg substitutes.
- Reduce the number of egg yolks you eat, since they contain cholesterol. Egg whites, however, don't have cholesterol and are good protein sources.
- *The American Heart Association recommends that most people eat less than 6 ounces of cooked lean meat, poultry, fish or seafood a day.**

Most meats have about 70 milligrams of cholesterol in each 3-ounce cooked serving. (Three ounces is about the size of a deck of cards.)

* *To learn more about our guidelines (scientific statements on many different health topics), visit* ***heart.org.***

- **Beef.** Eat lean red meat in moderation. Lean beef cuts include the round, chuck, top sirloin or top loin. Buy "choice" or "select" grades and lean or extra lean ground beef.

- **Lamb, pork and veal.** Look for lean cuts of these meats. Trim all outside fat before cooking. Lean pork cuts include the tenderloin, loin or center loin. Lean lamb cuts include the leg and loin.

- **Processed meats.** These include sausage, bologna, salami and hot dogs. They're often high in calories and saturated fat. Choose such meats less often. Look for low-fat varieties (low-fat turkey, chicken, turkey ham, turkey pastrami or lean boiled ham).

- **Organ meats.** These include liver, sweetbreads, kidney, brain and heart. All of these (except heart) are very high in cholesterol.

- **Poultry.** Eat chicken, Cornish hen and turkey instead of higher-fat duck and goose. Poultry is also preferable to fatty red meat. When possible, remove the skin before cooking poultry.

- **Fish and shellfish.** Aim for two servings of fish high in omega-3 fatty acids each week, such as mackerel, lake trout, herring, sardines, albacore tuna and salmon. Shrimp and crayfish are higher in cholesterol, but lower in saturated and total fat than most meats and poultry. Bake, broil, grill, steam or boil fish and shellfish.

When Healthy Eating Isn't Enough

Sometimes healthy eating won't lower your cholesterol levels enough. Your healthcare provider may prescribe a cholesterol-lowering drug. If you do take a cholesterol drug, healthy eating will help it work better.

Other Ways to Reduce Your Risk

- **Have your blood cholesterol checked regularly.** Take steps to lower it if it's high.
- **Don't smoke.** Smokers have more than twice the risk of heart attack as nonsmokers do. And daily exposure to tobacco smoke puts you at higher risk.
- **Have your blood pressure checked regularly.** Take steps to lower it if it's high.
- **Be physically active.** Try to get at least 150 minutes of moderate-intensity physical activity (for example, brisk walking) per week.
- **Recognize and treat diabetes.** If you have diabetes, work with your healthcare provider to keep glucose levels under control. Eat healthfully, control your weight and be physically active. Take all prescribed medications as directed.
- **Maintain a healthy weight.** Take steps to lose weight, if needed.
- **Eat healthy foods low in saturated fat, *trans* fat, cholesterol and sodium.**
- **Don't drink too much alcohol.** It can raise your blood pressure and triglyceride levels.

For **More Information**

We have many educational booklets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Topics include nutrition and weight management, smoking, cholesterol, high blood pressure, physical activity, controlling risk factors, cardiovascular conditions, treatments, procedures, stroke and more.

Visit **heart.org/mylifecheck** and complete our My Life Check™ assessment to get your personal heart score and a custom plan with the seven steps you may need to improve your heart health.

To learn more, call us toll-free at **1-800-AHA-USA1 (1-800-242-8721)** or contact your nearest American Heart Association office. You can also visit our Web site, **heart.org.**

For information on stroke, call **1-888-4-STROKE (1-888-478-7653)** or visit us online at **strokeassociation.org.**

Knowledge is power,
so ***Learn and Live!***

Heart Attack Warning Signs

Some heart attacks are sudden and intense, but most of them start slowly, with mild pain or discomfort. Here are some of the signs that can mean a heart attack is happening.

- **Chest discomfort.** Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
- **Discomfort in other areas of the upper body.** Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- **Shortness of breath.** This may occur with or without chest discomfort.
- **Other signs.** These may include breaking out in a cold sweat, nausea or lightheadedness.

As with men, women's most common heart attack symptom is chest pain or discomfort. But women are somewhat more likely than men to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting and back or jaw pain.

If you or someone you're with has any of these symptoms, **immediately call 9-1-1 or your emergency response number**. Don't wait longer than five minutes before calling for help. You need to get to a hospital right away. (Calling 9-1-1 is almost always the fastest way to get lifesaving treatment.)

Stroke Warning Signs

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, or trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness or loss of balance or coordination
- Sudden, severe headache with no known cause

If you or someone with you has one or more of these signs, don't delay! **Immediately call 9-1-1 or your emergency response number** so an ambulance (ideally with advanced life support) can be sent for you. Also, check the time so you'll know when the first symptoms appeared. It's very important to take immediate action. If given within three hours of the start of symptoms, a clot-busting drug can reduce long-term disability for the most common type of stroke.

Cut along dotted line and keep

For heart- or risk-related information,
call the American Heart Association at
1-800-AHA-USA1 (1-800-242-8721)
or visit us online at **heart.org.**

For stroke information, call our American Stroke Association at **1-888-4-STROKE** (1-888-478-7653) or visit **strokeassociation.org.** For information on life after stroke, call and ask for the Stroke Family Support Network.

National Center
7272 Greenville Avenue
Dallas, Texas 75231-4596

KRAMES staywell

Published and distributed by Krames StayWell, LLC.

To order, call: 800-333-3032
www.kramesstore.com/aha

50-1662 1205